

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife & Parks
Nevada Creek Phase 4 Restoration

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP tentatively plans to provide partial funding toward a project that would restore the 7,100 feet of the Nevada Creek stream channel to encourage proper function, enhanced channel stability, aquatic habitat function, and riparian health. The project would focus on restoring eroding streambanks, re-establishing proper channel cross-section, plan form, and longitudinal profile dimensions, and identifying opportunities to increase floodplain connectivity either by raising the channel bed, re-activating meander oxbows, or lowering high banks to bankfull elevation. Habitat would be improved by increasing overhead and in-stream cover, floodplain connectivity would be improved, vegetation growth would be encouraged, and a grazing management system would be implemented.

I. Location of Project:

This project will be conducted on Nevada Creek, a tributary to the middle Blackfoot River, located Southeast of Helmville within Township 12N, Range 10W, Sections 9 & 10 in Powell County (Figure 1). The project site is located upstream of Nevada Creek Reservoir (Figure 2). Below the reservoir, several similar restoration projects were completed from 2010 to 2019.

II. Need for the Project:

One goal within FWP's six-year operations plan for the fisheries program is to "protect, maintain, and restore native fish populations, their habitats, life cycles, and genetic diversity to ensure stewardship of native species." The project area was historically straightened, and a non-functional riparian area caused the channel to erode and down cut (Figure 3). This led to increased sedimentation, nutrient inputs, increased water temperatures, and reduced instream habitat complexity.

Previous downstream channel restoration projects (phases 1, 2, and 3) addressed over 17,000 feet of channel and reduced sediment, increased stream complexity, improved riparian condition, and created fish habitat that resulted in increased trout abundance. The proposed project is considered phase 4 and would continue the restoration upstream. The completion of this project should improve habitat for

native fish (westslope cutthroat trout), which will support their growth and survival. Non-native fish species such as rainbow trout and brown trout would also be positively impacted.

III. Scope of the Project:

The project proposes to restore the channel to proper dimensions and increase floodplain connectivity. Habitat would be improved by increasing overhead and in-stream cover, sediment inputs would be reduced, vegetation growth would be encouraged, and a grazing management system would be implemented. The overall goal is to improve overall stream and riparian health as well as increase habitat for aquatic species. Increasing or maintaining storage capacity in Nevada Creek Reservoir for beneficial use is also a project goal. The project will retain agricultural needs for the landowners and provide new partnership opportunities to educate communities about water quality.

This project is expected to cost \$550,712.40. Of this total, the FFIP would be contributing up to \$66,000 to complete the project. The remaining funds are considered match, and include the funds below:

Contributor	In-kind services	In-kind cash
Landowner	\$76,625	
Westslope TU Chapter		\$9,000
USFWS Partners Program		\$10,000
DEQ 319 Program		\$289,000
NFWF		\$28,000
Log Jam Presents		\$30,000
Big Blackfoot Chapter of Trout Unlimited	\$28,637.49	\$13,449.91
Matching Funds Total: \$484,712.40		

IV. Environmental Impact Review Checklist:

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment

Project Title: Nevada Creek Phase 4 Restoration

Division/Bureau: Fisheries Division / Fish Management Bureau

Description of Project: This project would restore the 7,100 feet of the Nevada Creek channel to encourage proper function, enhanced channel stability, aquatic habitat function, and riparian health. The project would focus on restoring eroding streambanks, re-establishing proper channel cross-section, plan form, and longitudinal profile dimensions, and identifying opportunities to increase floodplain connectivity either by raising the channel bed, re-activating meander oxbows, or lowering high banks to bankfull elevation.

A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture			X			X
2. Air quality or objectionable odors				X		
3. Water quality, quantity and distribution (surface or groundwater)			X			X
4. Existing water right or reservation				X		
5. Vegetation cover, quantity and quality			X			X
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species			X			X
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species			X			X

B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				X		
2. Land use				X		
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation				X		
8. Cultural and historic resources				X		
9. Evaluation of significance				X		X
10. Generate public controversy				X		

V. Explanation of Impacts to the Physical Environment

1. Geology and soil quality, stability and moisture

This project is expected to improve soil stability through reduced erosion and proper channel dimensions. The bank treatments and riparian plantings are intended to encourage root growth and hold banks together. As a result of this project, significantly more soil would be contained within the streambanks and would not erode into the stream. The overall impact is expected to be positive.

3. Water quantity, quality, and distribution.

No changes in streamflow would occur in Nevada Creek as a result of the proposed project. However, work would be completed in-channel and along the banks, which may affect turbidity. To address turbidity, operation of equipment in the stream channel will be minimized to the extent practicable. A 318 authorization will be obtained, if necessary, to meet short-term water quality standards. Long term, the project is expected to improve water quality through reduced sediment inputs.

5. Vegetation cover, quantity and quality

This project would improve vegetation cover, quantity, and quality by revegetation of the stream banks and riparian area. Vegetative communities will be actively created through planting and native seeding, and natural recruitment will be encouraged. Increased overhead and in-stream vegetative cover should provide additional habitat for aquatic species. This project will result in a functional and diverse stream and riparian corridor, which will greatly improve the vegetative cover, quantity, and quality.

7. Terrestrial or aquatic life and/or habitats.

This project would restore and revegetate the stream banks, floodplain, and riparian area on 7,100 feet of Nevada Creek, which is expected to provide additional shade and reduce erosion to improve aquatic habitat. Together with stream channel reconstruction, this project is intended to benefit overall stream and riparian health and function, which supports both terrestrial and aquatic life.

8. Unique, endangered, or fragile wildlife or fisheries species.

This project will affect westslope cutthroat trout, which is federally recognized as Sensitive and a Species of Concern in Montana. The impacts on this species due to this project are predicted to be positive, potentially increasing recruitment and survival.

10. Changes to abundance or movement of species.

Reduced sediment and improved habitat has the potential to improve fish population abundance through improved spawning, rearing, and overall habitat. Increased species abundance was found in similar phases downstream. Any changes to the abundance of fish species as a result of this project is considered positive.

VI. Explanation of Impacts to the Human Environment

8. Cultural and historic resources.

No cultural or historical resource impacts are anticipated. However, the State Historical Preservation Office will be notified of the project, and any potential concerns will be addressed.

VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects.

VIII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative.

If no funding is provided through the FFIP, the applicant would have to seek additional sources of funding to complete the project, or the affected area of Nevada Creek would remain degraded with eroding banks, lack of instream habitat, and an insufficient riparian vegetation community. The stream would continue contribute sediment to Nevada Creek Reservoir. Storage capacity of Nevada Creek reservoir would continue to diminish.

2. The Proposed Alternative.

The proposed alternative intends to provide partial funding through the FFIP to restore Nevada Creek, with the goal of improving aquatic habitat, the riparian community, reservoir capacity, and stream function to enhance fish populations.

IX. Environmental Assessment Conclusion Section.

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

North Powell Conservation District
Montana Department of Environmental Quality
U.S. Army Corps of Engineers

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None.

3. Is an EIS required?

No. We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish & Wildlife Commission, and funding will be contingent upon their approval. The EA will be distributed to all individuals and groups listed on the cover letter and will be published on the FWP webpage: www.fwp.mt.gov.

5. Duration of comment period?

Public comment will be accepted through 11:59 PM on February 2, 2020.

6. Person(s) responsible for preparing the EA.

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Figure 1: Project location (blue tack indicates project site)

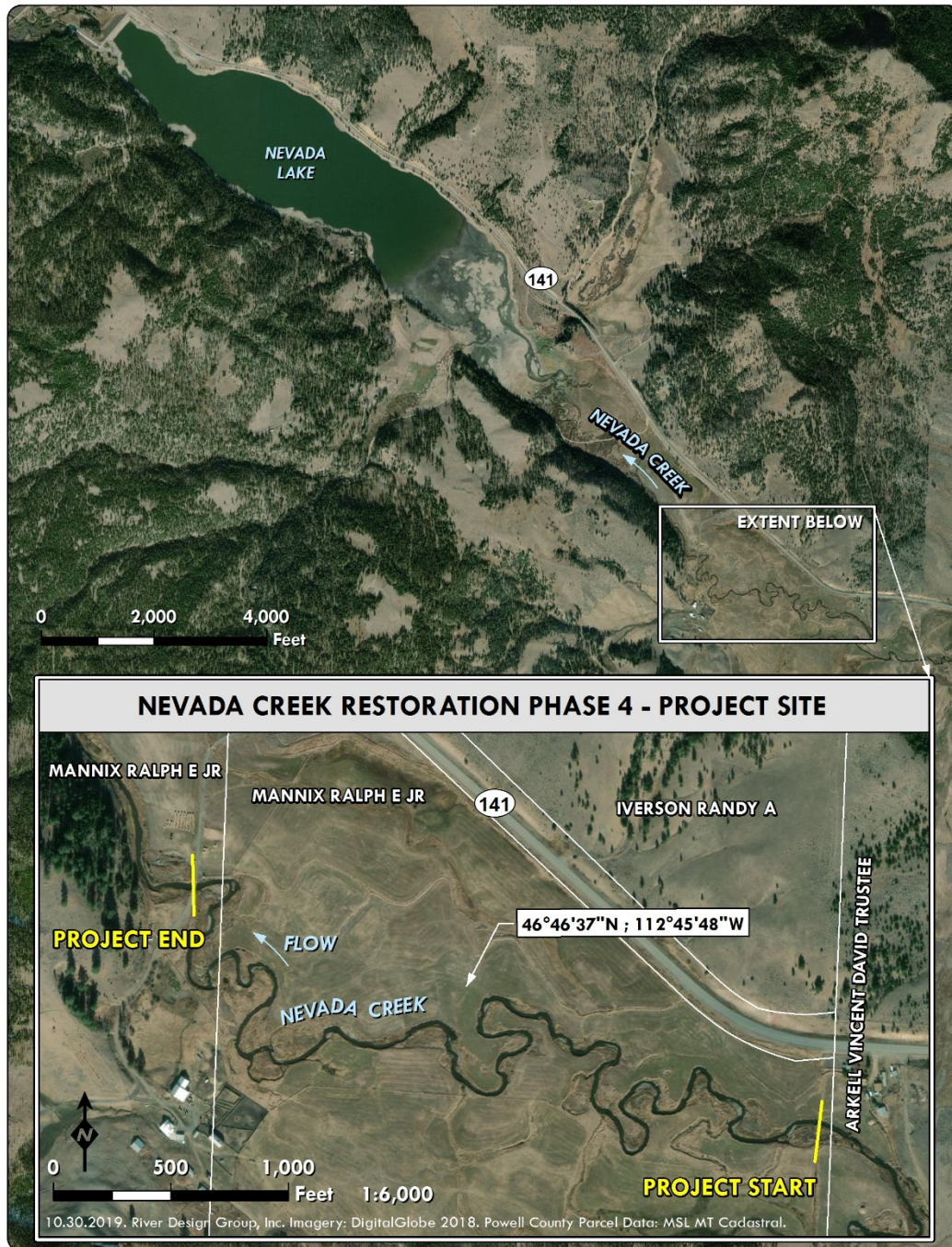


Figure 2: Project site detail



Figure 3: Existing conditions